

## REMARKS

Claims 1-41 stand rejected. Claims 1-41 remain pending in this patent application. Applicants respectfully submit that the amendments herein to this patent application do not add new matter to it.

### 35 U.S.C. §102 Rejections

Claims 1-12 and 14-41 are rejected under 35 U.S.C. §102(e) as being anticipated by Schlansker et al., US Patent Number 6,408,428 (hereinafter Schlansker).

#### Claim 1

Applicants respectfully contend that Schlansker fails to teach or suggest subject matter as recited in newly amended independent Claim 1. For instance, amended Claim 1 recites in part (emphasis added):

applying component quality filters to the component design spaces to produce component Pareto sets of designs; and  
forming a Cartesian product of the component Pareto sets to obtain a set of system designs.

Applicants respectfully assert that Schlansker does not teach or suggest forming a Cartesian product of the component Pareto sets to obtain a set of system designs as recited in amended Claim 1. Specifically, Applicants respectfully contend that Schlansker is silent on forming a Cartesian product of component Pareto sets to obtain a set of system designs.

Since Schlansker fails to teach or suggest at least one element recited in amended Claim 1, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 1. Therefore, Applicants respectfully submit that amended Claim 1 is allowable over Schlansker.

Claim 6

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in newly amended independent Claim 6. For instance, amended Claim 6 recites in part (emphasis added):

applying a system quality filter to the Cartesian product of the component validity sets to produce a Pareto set.

Applicants respectfully assert that Schlansker fails to teach or suggest applying a system quality filter to the Cartesian product of the component validity sets to produce a Pareto set as recited in amended Claim 6. Specifically, Applicants respectfully contend that Schlansker is silent on applying a system quality filter to the Cartesian product of the component validity sets to produce a Pareto set.

Since Schlansker does not teach or suggest at least one element recited in amended Claim 6, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 6. Therefore, Applicants respectfully submit that amended Claim 6 is allowable over Schlansker.

### Claim 14

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in newly amended independent Claim 14. For instance, amended Claim 14 recites in part (emphasis added):

preparing component Pareto sets by applying corresponding component evaluation functions and component quality filters to the component validity sets; and

forming a set of system designs that is a Cartesian product of the component Pareto sets.

Applicants respectfully assert that Schlansker fails to teach or suggest forming a set of system designs that is a Cartesian product of the component Pareto sets as recited in amended Claim 14. Specifically, Applicants respectfully contend that Schlansker is silent on forming a set of system designs that is a Cartesian product of component Pareto sets.

Since Schlansker does not teach or suggest at least one element recited in amended Claim 14, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 14. Therefore, Applicants respectfully submit that amended Claim 14 is allowable over Schlansker.

### Claim 21

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in newly amended independent Claim 21. For instance, amended Claim 21 recites in part (emphasis added):

applying a quality filter to the system designs of the partial validity sets to produce respective partial Pareto sets; and  
combining the partial Pareto sets to form a Pareto set.

Applicants respectfully assert that Schlansker fails to teach or suggest applying a quality filter to the system designs of the partial validity sets to produce respective partial Pareto sets as recited in amended Claim 21. Specifically, Applicants respectfully contend that Schlansker is silent on producing respective partial Pareto sets.

Additionally, Applicants respectfully assert that Schlansker does not teach or suggest combining the partial Pareto sets to form a Pareto set as recited in amended Claim 21. Specifically, Applicants respectfully contend that Schlansker is silent on combining partial Pareto sets.

Since Schlansker does not teach or suggest at least one element recited in amended Claim 21, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 21. Therefore, Applicants respectfully submit that amended Claim 21 is allowable over Schlansker.

#### Claim 24

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in newly amended independent Claim 24. For instance, amended Claim 24 recites in part (emphasis added):

applying a quality filter to the system designs of the partial validity sets, the quality filter comparing and selecting system designs based on the evaluation metrics and producing respective partial Pareto sets; and  
combining the partial Pareto sets to form a first Pareto set.

Applicants respectfully assert that Schlansker fails to teach or suggest a quality filter comparing and selecting system designs based on evaluation metrics and producing respective partial Pareto sets as recited in amended Claim 24. Specifically, Applicants respectfully contend that Schlansker is silent on producing respective partial Pareto sets.

Furthermore, Applicants respectfully assert that Schlansker does not teach or suggest combining the partial Pareto sets to form a first Pareto set as recited in amended Claim 24. Specifically, Applicants respectfully contend that Schlansker is silent on combining partial Pareto sets.

Since Schlansker does not teach or suggest at least one element recited in amended Claim 24, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 24. Therefore, Applicants respectfully submit that amended Claim 24 is allowable over Schlansker.

### Claim 31

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in independent Claim 31. For instance, Claim 31 recites in part (emphasis added):

selecting components for the cache memory;  
determining component Pareto sets for the components;  
preparing a combined Pareto set from the component Pareto sets;

Applicants respectfully assert that Schlansker fails to teach or suggest determining component Pareto sets for the components that are for the cache memory as recited in Claim 31. Specifically, Applicants respectfully contend that Schlansker is silent on determining component Pareto sets for the components that are for the cache memory.

Moreover, Applicants respectfully assert that Schlansker does not teach or suggest preparing a combined Pareto set from the component Pareto sets as recited in Claim 31. Specifically, Applicants respectfully contend that Schlansker is silent on preparing a combined Pareto set from the component Pareto sets.

Since Schlansker fails to teach or suggest at least one element recited in Claim 31, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 31. Therefore, Applicants respectfully submit that Claim 31 is allowable over Schlansker.

### Claim 32

Applicants respectfully contend that Schlansker fails to teach or suggest subject matter as recited in independent Claim 32. For instance, Claim 32 recites in part (emphasis added):

preparing a component Pareto set for a cache memory;  
preparing a combined Pareto set from the component Pareto sets of the processor and the cache memory;

Applicants respectfully assert that Schlansker does not teach or suggest preparing a component Pareto set for a cache memory as recited in Claim 32. Specifically, Applicants respectfully contend that Schlansker is silent on preparing a component Pareto set for a cache memory.

Additionally, Applicants respectfully assert that Schlansker fails to teach or suggest preparing a combined Pareto set from the component Pareto sets of the processor and the cache memory as recited in Claim 32. Specifically, Applicants respectfully contend that Schlansker is silent on preparing a combined Pareto set from the component Pareto sets of the processor and the cache memory.

Since Schlansker does not teach or suggest at least one element recited in Claim 32, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 32. Therefore, Applicants respectfully submit that Claim 32 is allowable over Schlansker.

### Claim 33

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in newly amended independent Claim 33. For instance, amended Claim 33 recites in part (emphasis added):

preparing component Pareto sets for the processor component and the memory component; and

forming a Cartesian product of the component Pareto sets to produce the set of designs for the processor system.

Applicants respectfully assert that Schlansker fails to teach or suggest forming a Cartesian product of the component Pareto sets to produce the set of designs for the processor system as recited in amended Claim 33. Specifically, Applicants respectfully contend that Schlansker is silent on forming a Cartesian product of the component Pareto sets.

Since Schlansker does not teach or suggest at least one element recited in amended Claim 33, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 33. Therefore, Applicants respectfully submit that amended Claim 33 is allowable over Schlansker.

### Claim 35

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in newly amended independent Claim 35. For instance, amended Claim 35 recites in part (emphasis added):

applying component quality filters to the component designs from the component validity sets and the subsets to produce component Pareto sets of designs; and  
forming a Cartesian product of the component Pareto sets to obtain a set of system designs.

Applicants respectfully assert that Schlansker fails to teach or suggest forming a Cartesian product of the component Pareto sets to obtain a set of system designs as

recited in amended Claim 35. Specifically, Applicants respectfully contend that Schlansker is silent on forming a Cartesian product of the component Pareto sets.

Since Schlansker does not teach or suggest at least one element recited in amended Claim 35, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 35. Therefore, Applicants respectfully submit that amended Claim 35 is allowable over Schlansker.

### Claim 36

Applicants respectfully contend that Schlansker does not teach or suggest subject matter as recited in newly amended independent Claim 36. For instance, amended Claim 36 recites in part (emphasis added):

producing a set of system designs that is a Cartesian product of component Pareto sets.

Applicants respectfully assert that Schlansker fails to teach or suggest producing a set of system designs that is a Cartesian product of component Pareto sets as recited in amended Claim 36. Specifically, Applicants respectfully contend that Schlansker is silent on forming a Cartesian product of component Pareto sets.

Since Schlansker does not teach or suggest at least one element recited in amended Claim 36, Applicants respectfully assert that Schlansker does not anticipate the subject matter recited in amended Claim 36. Therefore, Applicants respectfully submit that amended Claim 36 is allowable over Schlansker.

CONCLUSION

In light of the above listed remarks, Applicants respectfully request reconsideration of rejected Claims 1-41.

Based on the reasoning present above, Applicants respectfully assert that amended Claims 1-41 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Respectfully submitted,

Wagner, Murabito & Hao LLP

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Thomas M. Catale  
Registration No.: 46,434

Wagner, Murabito & Hao LLP  
Two North Market St., Third Floor  
San Jose, CA 95113

Voice: (408) 938-9060  
Facsimile: (408) 938-9069



Appl. No. 09/502,194

ANNOTATED SHEET SHOWING CHANGES

2/10

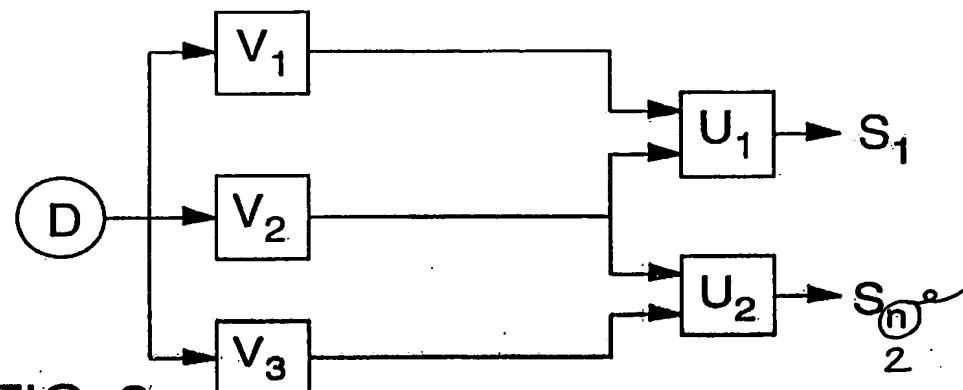


FIG. 3

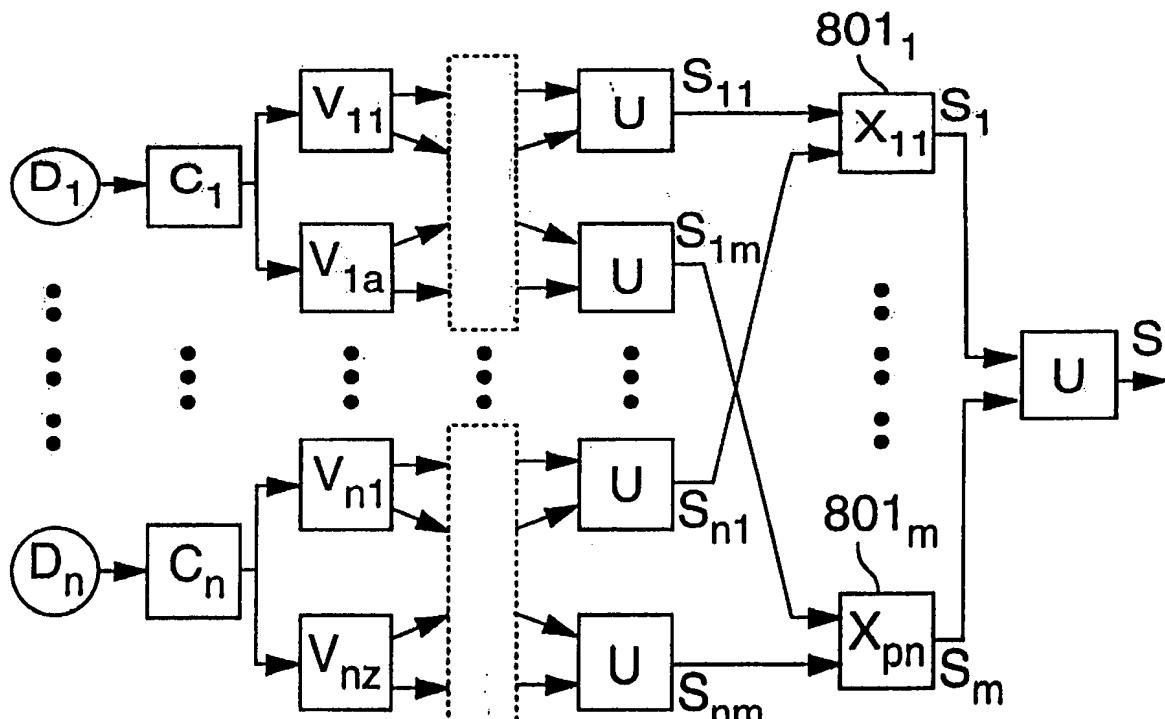


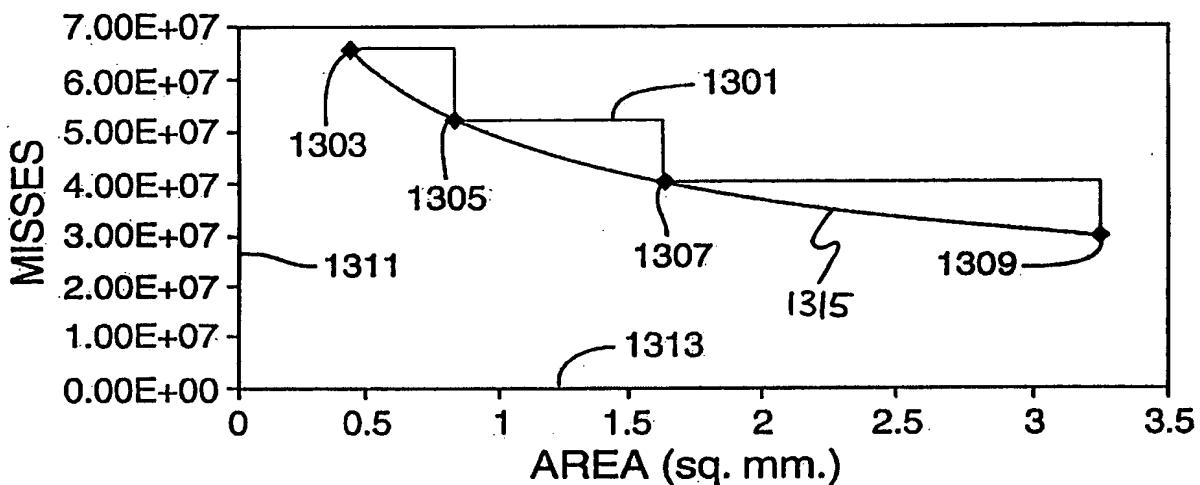
FIG. 8



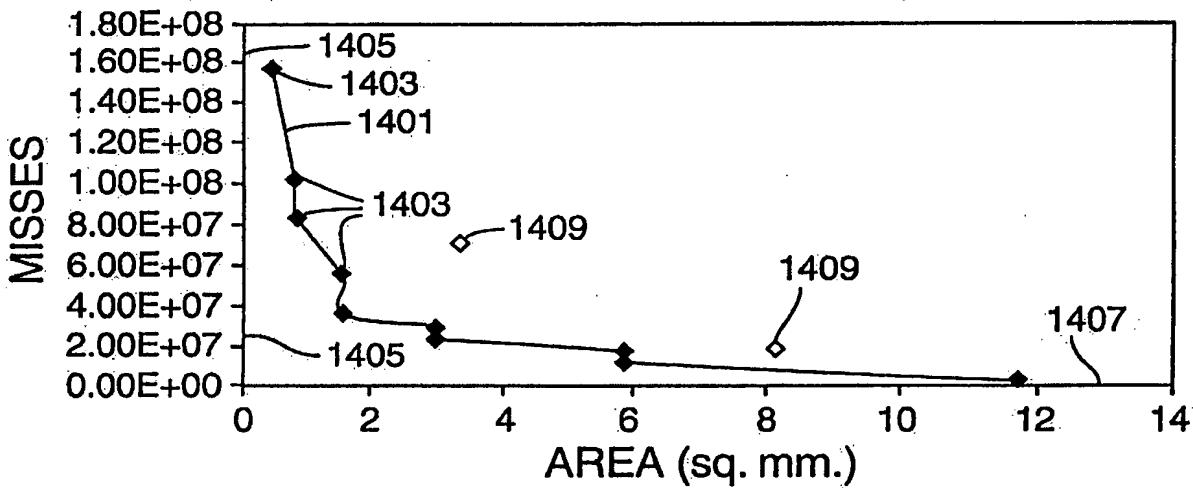
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7/10

**FIG. 13**



**FIG. 14**





Appl. No. 09/502,194

ANNOTATED SHEET SHOWING CHANGES

10/10

FIG. 18

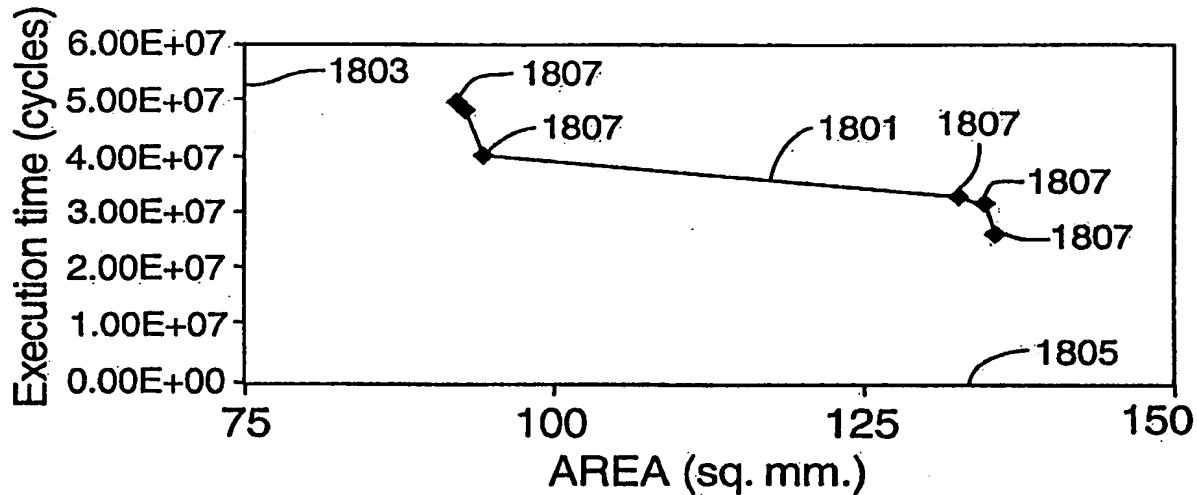


FIG. 19

